

### **V. REMARKS**

Claims 1 and 6 are rejected under 35 U.S.C. §103(a) as being unpatentable over Leftault, Jr. et al. (U.S. Patent No. 4,967,538) in view of Lyu (U.S. Patent No. 3,905,507) and MacPherson (U.S. Patent No. 4,402,419) and Jonas et al. (U.S. Patent No. 5,234,126) and Yamamoto et al. (Japan 01252274). The rejection is respectfully traversed.

Leftault teaches an inwardly reformable end wall for a container. The inwardly reformable end wall can be either integrally formed with or connected to the body of the container. The end wall has a panel portion surrounded by a wall portion which terminates into a relatively narrow rim. The rib is connected to the side wall of the container. The wall portion extends outwardly from the container and is adapted to be reformed inwardly in a controlled manner by an external mechanism after the container has been filled and sealed. As the panel portion is pressed inwardly into the container, the wall portion is reformed such that the volume of the container is reduced and the internal pressure is increased. When a hot food product is filled and sealed in the container, a partial vacuum occurs upon cooling and the inward reforming of the end wall can restore the container to any preselected internal pressure.

Lyu teaches a profiled bottom wall for a container. The profiled bottom wall has a cylindrical side wall and an integral bottom wall. The bottom wall and side wall merge with each other along an annular outwardly directed bead and the bottom wall has an annular inwardly directed bead located within the outwardly directed bead. Adjacent ends of the two beads are interconnected by an arcuate portion that produces a convex surface within the container and the portion of the container bottom wall within the inwardly directed bead is generally flat and merges with the adjacent end of the inwardly directed bead along a further arcuate portion that defines a concave surface within the container.

MacPherson teaches a bottom wall for a seamless metal container. The container includes a body and an integral bottom which has controlled distention characteristics. The bottom is joined to the body by a radius and the bottom has a flat central portion to offset inwardly into the body and is joined to the radius by an annular, generally frustoconical, radially outer portion. The offset of the flat central portion into the interior of the body is less than the thickness of the metal of the

bottom and is such that in conditions of use under pressure with the bottom distended, the bottom becomes flat.

Jonas teaches a plastic container which is retortable by being capable of surviving retort at over 250° without catastrophic failure.

Yamamoto teaches packaging a low-acidic beverage in an aluminum can.

In rejecting claims under 35 U. S. C. 103, the United States Patent and Trademark Office bears the initial burden of presenting a *prima facie* case of obviousness. Only if that burden is met, does the burden of coming forward with evidence or argument shift to the applicant. “A *prima facie* case of obviousness is established if the teachings from the prior art itself would appear to have suggested the claimed subject matter to a person of ordinary skill in the art.” In re Bell, 991 F.2d 781, 782, 26 U.S.P.Q.2d 1529, 1531 (Fed. Cir. 1993) quoting In re Rinehart, 531 F.2d 1048, 1051, 189 U.S.P.Q. 143, 147 (CCPA 1976). The mere fact that the prior art *may* be modified in the manner suggested by the Examiner neither makes the modification *prima facie* obvious or obvious unless the prior art suggested the desirability of the modification. The test for obviousness is what the combined teachings of the references would have suggested to one of ordinary skill in the art. The conclusion that the claimed subject matter is obvious must be supported by evidence, as shown by some objective teaching in the prior art or by knowledge generally available to one of ordinary skill in the art that would have led the individual to combine the relevant teachings of the references to arrive at the claimed invention. If the Examiner fails to establish a *prima facie* case of obviousness, the rejection is improper and will be overturned.

It is respectfully submitted that there must be a basis in the art for combining or modifying references. Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching, suggestion or incentive supporting the combination. ACS Hospital Systems, Inc. v. Montefiore Hospital, 732 F.2d 1572, 1577, 221 U.S.P.Q. 929, 933 (Fed. Cir. 1984). As stated in the Office Action on page 3, line 14, Lefault does not teach an inspection aptitude per se. Claim 1 recites a low positive pressure canned food having an internal pressure aptitude. Thus, the United States Patent and Trademark Office fails to consider all of the claimed features of the invention, especially those that are missing from the prior art. We propose to argue that one of ordinary skill in

the art would not motivated to combine the features of the applied art to arrived at the claimed invention because the applied art is devoid of such features. Therefore, there is no reasonable justification for one of ordinary skill in the art to combine the features of the applied art.

Under 35 U.S.C. §103(a), a patent may not be obtained though the invention is not identically disclosed or described. . . .if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art. . . . It is respectfully submitted that the results and advantages are a part of the claimed invention as a whole. It is a basic tenet of patent law that the U.S. Patent and Trademark Office is not permitted to ignore the results and advantages produced by claimed subject matter, of which the prior art is devoid, simply because the claimed limitations are similar to that otherwise barren prior art. Diversitech Corp. v. Century Steps, Inc., 850 F.2d 675, 7 USPQ2d 1315 (Fed. Cir. 1988); In re Chupp, 816 F.2d 643, 2 USPQ2d 1437 (Fed. Cir. 1987); Formson v. Advance Offset Plate, 755 F.2d 1549, 225 USPQ 26 (Fed. Cir. 1985).

It is respectfully submitted that the claimed invention relates to low positive pressure canned food and a low positive pressure can therefor having an internal pressure inspection aptitude which can be subjected to internal pressure inspection with accuracy equal to inspecting negative pressure canned food. (Specification page 1, lines 6-9). It is respectfully submitted that none of the applied art, alone or in combination, teaches or suggests the results and advantages of the claimed invention.

Furthermore, the prior art fails to teach the problems in the conventional art that are now resolved by the claimed invention. Such problems now resolved by the claimed invention are summarized as follows:

1. A negative pressure can has a high rigidity to resist negative pressure and therefore a negative pressure can has a sidewall greater in thickness than that of a conventional positive pressure can and the corresponding cost of such negative pressure cans is high. (Specification, page 1, last paragraph)
2. A conventional positive pressure can has a thin wall-thickness and lacks internal pressure inspection aptitude. Therefore contents of low acidic drinks, for example, such as drinks with milk, are contained in negative pressure cans. Positive

pressure canned foods are those that are relatively difficult to spoil and putrefying. (Specification, page 2, paragraph 2).

3. With a conventional positive pressure can with a dome-shaped bottom, the bottom wall is difficult to change and an accurate change in internal pressure cannot be measured by internal pressure inspection such as by tap test. (Specification, page 2, last paragraph).
4. In a conventional positive pressure can, a small change of internal pressure due to a small leak or putrefication is difficult to detect because a variation of internal pressure with regard to the entirety of the can is low. (Specification, page 3, first full paragraph).
5. Buckling might be induced when a conventional positive pressure can is subjected to retort sterilization. It is difficult for a conventional bottom shape of a negative pressure can to withstand retort processing in terms of strength. It is necessary to provide canned food for retort processing with a can having a thick bottom thus eliminating the advantage of a positive pressure can having thin plate material. (Specification, page 3, second paragraph)

Claim 6 depends from claim 1 and includes all of the features of claim 1. Thus, it is respectfully submitted that the dependent claim is allowable at least for the reason claim 1 is allowable as well as for the features it recites.

Withdrawal of the rejection is respectfully requested.

Claim 2 is rejected under 35 U.S.C. §103(a) as being unpatentable over Leftault, Jr. et al. (U.S. Patent No. 4,967,538) in view of Lyu (U.S. Patent No. 3,905,507) and MacPherson (U.S. Patent No. 4,402,419) and Jonas et al. (U.S. Patent No. 5,234,126) and Yamamoto et al. (Japan 01252274) as applied the claims 1 and 6 and further in view of Yamaguchi (U.S. Patent No. 4,431, 112). The rejection is respectfully traversed.

Yamaguchi teaches a drawn and higher and can body with an integral bottom for packaging pressurized beverages.

Claim 2 depends from claim 1 and includes all of the features of claim 1. Thus, it is respectfully submitted that the dependent claim is allowable at least for the reason claim 1 is allowable as well as for the features it recites.

Withdrawal of the rejection is respectfully requested.

Claims 10 and 12-14 are rejected under 35 U.S.C. §103(a) as being unpatentable over Leftault, Jr. et al. (U.S. Patent No. 4,967,538) in view of Lyu (U.S. Patent No. 3,905,507) and MacPherson (U.S. Patent No. 4,402,419). The rejection is respectfully traversed.

As mentioned above, it is respectfully submitted that there must be a basis in the art for combining or modifying references. As stated in the Office Action on page 3, line 14, Lefault does not teach an inspection aptitude per se. Claim 10 recites a low positive pressure canned food having an internal pressure aptitude. Thus, it is respectfully submitted that the United States Patent and Trademark Office fails to consider all of the claimed features of the invention, especially those that are missing from the prior art. It is respectfully submitted that one of ordinary skill in the art would not be motivated to combine the features of the applied art to arrive at the claimed invention because the applied art is devoid of such features. Therefore, there is no reasonable justification for one of ordinary skill in the art to combine the features of the applied art.

As mentioned above, it is respectfully submitted that the claimed invention relates to low positive pressure canned food and a low positive pressure can therefore having an internal pressure inspection aptitude which can be subjected to internal pressure inspection with accuracy equal to inspecting negative pressure canned food. (Specification page 1, lines 6-9). It is respectfully submitted that none of the applied art, alone or in combination, teaches or suggests the results and advantages of the claimed invention.

Further, as mentioned above, the prior art fails to teach the problems in the conventional art that are now resolved by the claimed invention.

Claims 12-14 depend from claim 10 and include all of the features of claim 10. Thus, it is respectfully submitted that the dependent claims are allowable at least for the reason claim 10 is allowable as well as for the features they recite.

Withdrawal of the rejection is respectfully requested.

Claim 16 is rejected under 35 U.S.C. §103(a) as being unpatentable over Leftault, Jr. et al. (U.S. Patent No. 4,967,538) in view of Lyu (U.S. Patent No. 3,905,507) and MacPherson (U.S. Patent No. 4,402,419) and Cerny et al. (U.S. Patent No. 4,381,061). The rejection is respectfully traversed.

Cerny teaches a plastic or thermoplastic container designed to exhibit non-paneling of its sidewall due to reduction in pressure within the container. The container is provided with a yieldable bottom end wall constructed to compensate against the effects of reduced internal pressures experienced after sealing hot fluids.

Claim 16 is directed to a can that includes a can body with a can body diameter defining a can interior and a bottom thereof molded integrally with the can body, the bottom of the can having an annular ground portion, an annular bead and a bottom wall integrally connected to each other with the annular bead disposed between the annular ground portion and the bottom wall, the annular ground portion defining a crest portion and having an annular ground portion diameter and including an external rising wall and an internal rising wall, the external rising wall including a first inclined portion extending from the crest portion and inclined away from a longitudinal centerline of the can at a first external rising wall angle of inclination and a second inclined portion extending from the first inclined portion to the can body and inclined away from the longitudinal centerline of the can at a second external rising wall angle of inclination greater than the first external rising wall angle of inclination, the annular ground portion integrally connected to the can body at the second inclined portion of the external rising wall and disposed radially inwardly relative to the longitudinal centerline of the can body diameter with an annular ground portion diameter being in a range of 70% to 98% of the can body diameter, the annular ground portion projecting outwardly of the can interior at a height in a range of 0.1 to 10.0 mm relative to the bottom wall, the annular bead integrally connected radially inwardly of the annular ground portion by the internal rising wall with the annular bead projecting into the can interior at a depth in a range of 0.1 to 5.0 mm relative to the bottom wall, the bottom wall having a flat shape and a bottom wall diameter in a range of 60% to 90% of the annular ground portion diameter, the first external rising wall angle of inclination being in a range of 5° to 30°, the internal rising wall rising at an internal rising wall angle of inclination in a range of 65° to 90° relative to a support surface of the can.

In re Fine, 837 F.2d 1071, 5 USPQ 2d 1596 (Fed. Cir. 1988), the Federal Circuit held that a reference did not render the claimed combination *prima facie* because the Examiner ignored a material claimed temperature limitation which was absent from the reference. By analogy, the United States Patent and Trademark

Office has ignored the various ranges of dimensions and the various relationships of the ranges recited in claim. 16. The United States Patent and Trademark Office shows respective ones of the ranges in a selected one of the different references. In our opinion, to merely point out features in various references violates 35 U.S.C. §103(a) in that a patent may not be obtained though the invention is not identically disclosed or described. . . .if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art.

Withdrawal of the rejection is respectfully requested.

In view of the foregoing, reconsideration of the application and allowance of the pending claims are respectfully requested. Should the Examiner believe anything further is desirable in order to place the application in even better condition for allowance, the Examiner is invited to contact Applicants' representative at the telephone number listed below.

Should additional fees be necessary in connection with the filing of this paper or if a Petition for Extension of Time is required for timely acceptance of the same, the Commissioner is hereby authorized to charge Deposit Account No. 18-0013 for any such fees and Applicant(s) hereby petition for such extension of time.

Respectfully submitted,

Date: July 22, 2004

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of:

Hiroo IKEGAMI et al

Application No.: 09/581,253

Filed: June 26, 2000

For: LOW POSITIVE PRESSURE CANNED FOOD HAVING AN INTERNAL PRESSURE INSPECTION APTITUDE AND CAN THEREFOR



Attorney Docket No.: OSY-0000

Examiner: R. Madsen

Art Unit: 1761

Confirmation No.: 5157

**DECLARATION UNDER 37 C.F.R. §1.132**

Commissioner for Patents  
P.O. Box 1450  
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Sir:

I, Dr. Ken Takenouchi, being duly sworn, hereby declare and say that:

I am one of the Inventors/Applicants of the above-identified invention.

I was awarded a Master degree on March 24, 1984 from Osaka University and a Ph.D. degree on March 25, 2004 from Yokohama National University. I studied applied physics in Osaka University, which including acoustics, vibration measurement, frequency analysis, material mechanics, etc. I studied on "an analytical study on tapping inspection of a can" in Yokohama National University, which including fundamental analysis of can body, optimized design of can body.

I am an employee of TOYO SEIKAN KAISHA, LTD., the assignee of the above-identified application. I have worked on developments of technology for packaging container, including forming process of 2-piece can, tapping inspection system, liquid nitrogen filling system, design of can body suitable for tapping inspection, etc.

In support of patentability of the invention, I hereby submit to the United States Patent and Trademark Office the following two (2) documents that I had prepared either by myself or in concert with others:

1. Inventor's Comment about US Patent Application 09/581,253, dated July 8, 2004 (5 pages); and
2. Optimization of Can Bottom Shape for Retort Sterilization and Tapping Inspection by Statistical Design Support System, Transactions of JSCES Paper No. 20030021 by Ken Takenouchi, Junichi Takada, Hiroo Ikegami and Masaki Shiratori (6 pages).



I further declare that I have no direct financial interest in the present invention, other than as an employee of the assignee.

I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further, that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent resulting therefrom.

July 21, 2004  
Date

Ken Takenouchi  
Dr. Ken Takenouchi

Enclosures: Inventor's Comment about US Patent Application 09/581,253  
Optimization of Can Bottom Shape for Retort Sterilization and Tapping  
Inspection by Statistical Design Support System

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